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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,842	06/27/2006	Hong You	20345/0205062-US0	1237

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EXAMINER	
WILSON, MICHAEL H	
ART UNIT	**PAPER NUMBER**
1794	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/596,842	YOU ET AL.	
	Examiner	Art Unit	
	MICHAEL WILSON	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 May 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7,11 and 12* is/are rejected.

7)☒ Claim(s) *8-10* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 May 2009* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This Office action is in response to Applicant's amendment filed 5 May, 2009, which amends claims 2-4.

Claims 1-12 are pending.

2. The rejection of under 35 U.S.C. 112, second paragraph of claims 2-4, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention is withdrawn due to applicant's amending of the claims in the reply filed 5 May, 2009.

3. The objection to the drawing in the Office Action mailed 4 February, 2009 is withdrawn due to applicants amending of the drawing the filing of replacement sheets.

4. The examiner notes that the claim status indicators for claims 2-4 are incorrect. These claims have been amended in response to a 112(2nd) rejection of record and are considered by the examiner as "amended" not "previously presented."

Terminal Disclaimer

5. The terminal disclaimer filed on 4 May, 2009 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of Application No. 11/377,474 has been reviewed and is NOT accepted.

6. The terminal disclaimer does not comply with 37 CFR 1.321(b) and/or (c) because:

The person who has signed the disclaimer has not stated the extent of his/her interest, or the business entity's interest, in the application/patent. See 37 CFR 1.321(b)(3).

The terminal disclaimer has not been approved by the paralegal considering the terminal disclaimer because the percentage interest is not stated.

Claim Objections

7. Claim 3 is objected to because of the following informalities: The period following the last structure in line 18 of the claim (diphenylamine) should be deleted.

Appropriate correction is required.

Double Patenting

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In *re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 1-6, 11, and 12 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4, 6, and 10-14 of copending Application No. 11/377474. Although the conflicting claims are not identical, they are not patentably distinct from each other because while the claims are not identical there is substantial overlap between the present claims and the copending application.

One of ordinary skill attempting to make and use the polymer and device of copending application 11/377474 would also be practicing the present invention. The copending application teaches an electroluminescent polymer represented by the formula in present claim 1 where Ar is a substituted fluorene, with x (instant l) and y (instant m) integers in the present range. The additional unit B is taught to be an aryl or heteroaromatic group which also falls into the recitation of Ar ("combinations thereof," instant claim 1) (copending claim 1). Instant R1, R2, R3, and R4 are taught as the same alkyl and aryl units as instant claim 2 (copending claim 2). Instant R5 and R6 are taught as the same alkyl and aryl units as instant claim 3 (copending claim 3). Instant R7 and R8 are taught as the same alkyl and aryl units as instant claim 4 (copending claim 4). B may be selected from groups (i) to (v) or a combination thereof (vi) which includes an aryl group (fluorene) and heteroaromatic groups (copending claim 6). The ratio of x+y:z is 50-100:0-50 (copending claim 7) overlaps with the present claims (instant claim 6). The copending application also teaches an electroluminescent device comprising an anode, cathode and a light-emitting layer containing the

electroluminescent polymer (copending claims 10 and 11), and may further comprise a hole, electron transport layer, or interlayer (copending claims 12-14).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

10. Claim 7 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 11/377474 in view of Treacher et al. (WO 02/077060 A1) English equivalent (US 2004/0135131 A1) relied upon.

Although the conflicting claims are not identical, they are not patentably distinct from each other because while the claims are not identical there is substantial overlap between the present claims and the copending application. One of ordinary skill attempting to make and use the polymer and device of copending application 11/377474 would also be practicing the present invention. The copending application teaches an electroluminescent polymer represented by the formula in present claim 1 where Ar is a substituted fluorene, with x (instant l) and y (instant m) integers in the present range. The additional unit B is taught to be an aryl or heteroaromatic group which also falls into the recitation of Ar ("combinations thereof," instant claim 1) (copending claim 1). However the reference does not explicitly disclose wherein Ar is an arylamine comprising 5-15 mol % of the polymer.

Treacher et al. teach a similar electroluminescent polymer (abstract). The reference teaches adding arylamine units to ([0071], and [0212]) polymers comprising

polyfluorene in order to improve the hole transport properties of the polymer ([0069]-[0070]). The reference teaches using at least 5 mol % of arylamine copolymer units and gives an example of 10 mol % arylamine units [0212].

It would be obvious to one of ordinary skill in the art at the time of the invention to add the arylamine units of Treacher et al. into the polymer of copending application 11/377474. One of ordinary skill in the art would reasonably expect such a combination to be suitable given that Treacher et al. teach arylamine units in electroluminescent polymers. One of ordinary skill would be motivated by a desire to improve the hole mobility of the polymer as taught by Treacher et al.

This is a provisional obviousness-type double patenting rejection.

Claims 1-7, 11, and 12 are directed to an invention not patentably distinct from claims 1-4, 6, and 10-14 of commonly assigned Application No. 11/377474. Specifically, see above.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300). Commonly assigned Application No. 11/377474, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions

were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

Allowable Subject Matter

11. Claims 8-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. Claims 8-10 remain allowable subject matter for the reasons of record.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

1. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL WILSON whose telephone number is (571) 270-3882. The examiner can normally be reached on Monday-Thursday, 7:30-5:00PM EST, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Tarazano can be reached on (571) 272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

2. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. Lawrence Tarazano/ MHW
Supervisory Patent Examiner, Art Unit 1794